

# Climate change, human mobility and climate risk insurance tools

## Scoping Paper

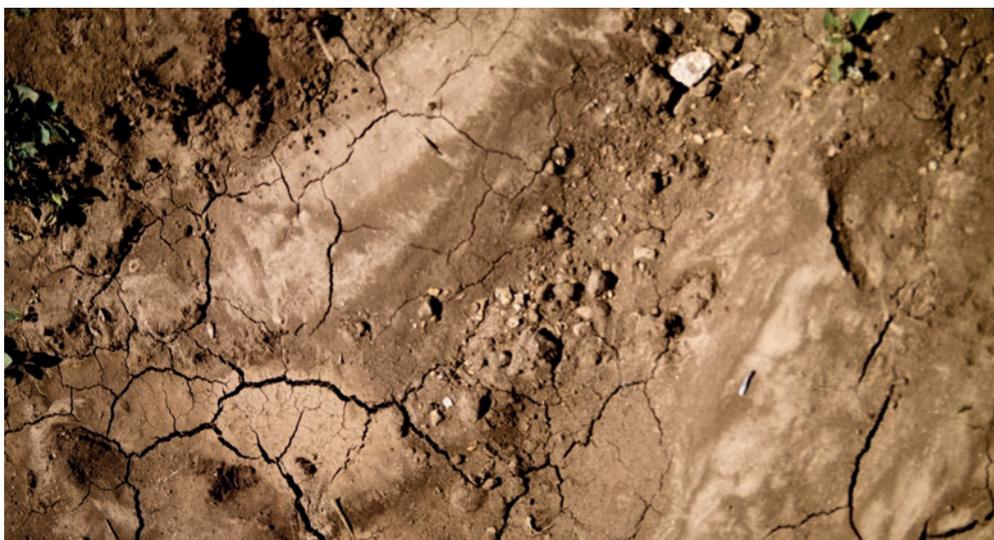
**Climate change** is projected to intensify environmental degradation and natural hazards in many regions across the globe. In combination with other factors, climate change may alter and intensify human mobility, that is, volumes and patterns of migration, displacement and planned relocation. Human mobility can be a positive coping strategy for poor and vulnerable people. However, if poorly managed human mobility can also increase people's vulnerability. The outcome depends largely on policies and instruments.

What is needed are instruments that would steer climate-related human mobility in ways that are beneficial to the poor and vulnerable population. One instrument that can affect climate-induced mobility in a positive way are climate risk insurance tools. Climate risk insurance tools provide poor and vulnerable states and individuals (e.g. farmers, pastoralists) with swift cash payouts and disaster-related skills and knowledge to cope with impacts of natural hazards such as hurricanes, floods or droughts. By helping to build resilience, climate risk insurance tools may secure and create the conditions that allow people to make free decisions on staying or leaving, and, in doing so, reduce displacement risks.

## The relationship between climate change and human mobility: migration vs displacement

The effects associated with climate change such as decreased availability or losses of ecosystem services and the increase in extreme weather events put lives and livelihoods at risk. In combination with other drivers, for instance overexploitation of resources, population growth or urbanization, climate change may alter and intensify human mobility with regards to volumes and patterns of migration, displacement and planned relocation. In a recent study, the World Bank argued that by 2050 up to 143 million people could migrate from climate "hot spots" to areas with better climatic and economic conditions within the country of origin (*World Bank 2018*). Furthermore, the number of displaced persons resulting from natural disasters could increase given that the frequency and severity of rapid onset events is expected to rise. Already today, natural disasters cause an annual average of 18 million weather-related displacements per year (*IDMC 2017*).

Climate change should not be perceived as a separate mobility driver but as a factor that intensifies existing drivers, especially *environmental* and *economic* drivers but also political ones (*Foresight 2011*). In combination with other factors (e.g. cost of moving, legal entry requirements/links to smuggler networks,



links to diaspora, available communication technology etc.) as well as on personal and household characteristics (e.g. age, sex, health, wealth, perception of risk, religious/ethnic belief and values etc.) individuals might decide to leave or stay (*Foresight 2011*). The precise impact of climate change on human mobility varies, however, across ecosystems and context. Accordingly, various pathways are possible:

**A possible pathway how slow onset events (e.g. sea-level rise) might trigger migration:** The temperature increase and heat stress, especially in combination with water scarcity, can potentially lead to increase in crop failures and decreasing crop yields, higher livestock mortality and disease, decline in fish catches and reduced work performances (*FAO 2017; FAO 2018; Rojas-Downing 2017*). Without adaptation these effects could translate into reduced or unstable incomes, malnutrition and even famine (*FAO 2017*). In combination with other factors (e.g. cost of moving, risk perception, household needs) people might decide to migrate to compensate reduced agricultural productivity and related food/health and income risks.

**A possible pathway how rapid onset events (e.g. extreme storms, floods) might trigger displacement:** The projected increase in the frequency and severity of extreme weather events might increase the number of disaster-related displacements. An increasing number of people might seek refuge to cope with the immediate threats to health and safety within the country of origin. Natural disasters cause loss of lives and injuries, damage to property, infrastructure and ecosystem services and lead to subsequent water, food, health and income risks. The degree of damage to property and livelihoods assets as well as the provision and distribution of disaster aid are thereby key variables affecting the scale and nature of disaster displacement.

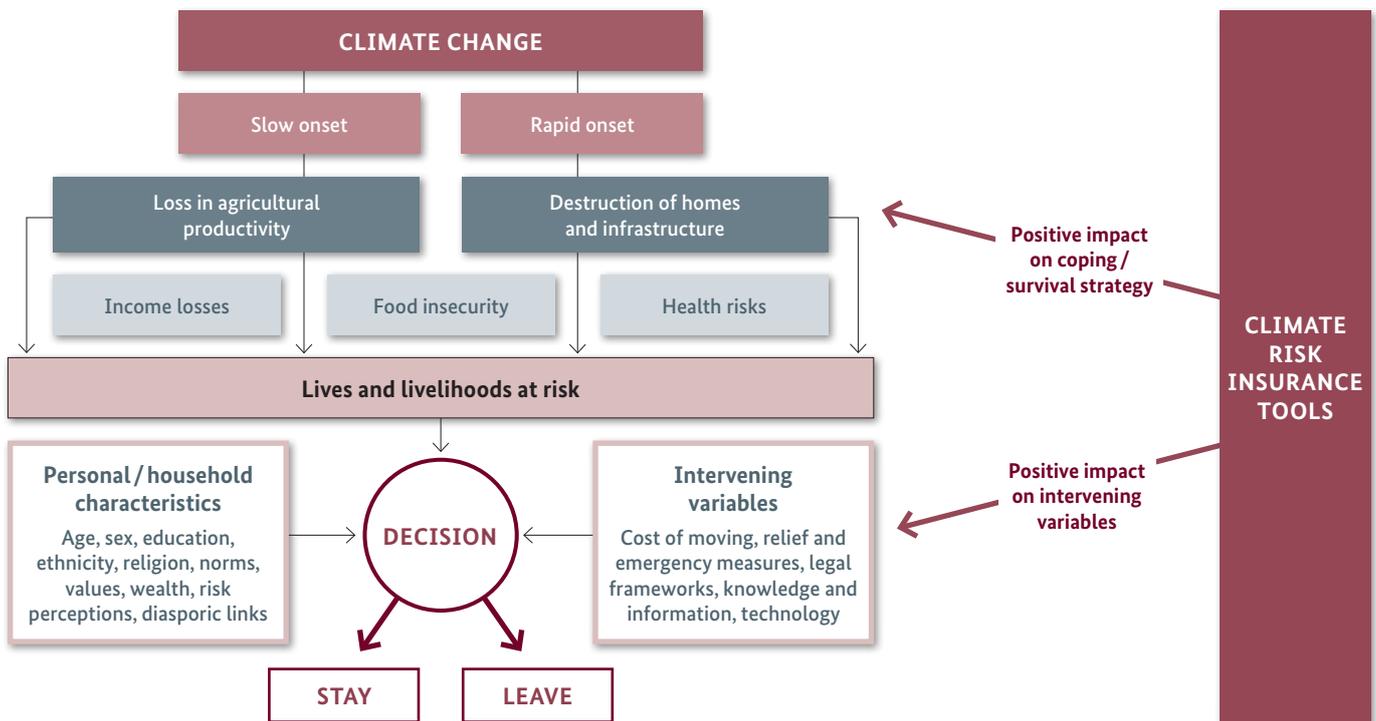
## The potential role of climate risk insurance tools

One instrument that can affect human mobility are climate risk insurance tools (CRI tools). CRI tools supported by development partners provide poor and vulnerable states and individuals (e.g. farmers, pastoralists) with swift cash payouts and disaster-related skills and knowledge to cope with impacts of natural hazards such as hurricanes, floods or droughts.

**Role of CRI tools in affecting mobility is unclear:** Unfortunately, there is no empirical evidence on how CRI tools impact migration and displacement. CRI tools may inhibit or facilitate mobility. Various and partly contradictory pathways are possible: For instance, by providing people with the necessary funds to re-build their livelihoods, setting incentives to grow higher yielding seeds and/or adopt smart agricultural techniques that increase agricultural productivity, CRI tools can address some of the (economic) root causes of migration. Conversely, by providing households with the necessary funds to finance the cost of moving and increasing risk awareness, CRI tools can address some of the intervening variables that prevent people from migrating in the first place. Moreover, by providing poor and vulnerable states with immediate payouts and disaster-related knowledge and skills, CRI tools can minimize the time period people are being displaced and, thus, the scale and volume of displacement. Properly designed, a quick payout allows countries to kick-off early action measures immediately to smooth the disaster impact and re-establish basic services. It depends, however, on the effective implementation of early action measures.



## Overview climate change, human mobility and climate risk insurance tools



### Key findings

**The theoretical discussion indicates that CRI tools can help to secure choice:** They can stabilize or create the conditions that allow people to make free decisions on leaving or staying. They may help to strengthen the capacity of individuals, households and states to prepare and absorb the impacts of slow and rapid onset events. Put differently, CRI tools may contribute to reduce risk associated with displacement.

### Recommendations for policy and practice:

- 1. Strengthen adaptation and disaster risk reduction in poor and vulnerable countries.** CRI tools increase the coping capacity and may reduce the need for people to move under distress. But they do not reduce risk exposure.
- 2. Target farmers and pastoralists in Sub-Saharan Africa and highly exposed states/cities in East and South Asia.** Sub-Saharan Africa is projected to be a climate migration 'hot spot', East and South Asia, in turn, continues to be a disaster displacement 'hot spot'. Insurance Initiatives, such as the InsuResilience Global Partnership (IPG), should consider to scaling up appropriate and context-specific CRI tools in Sub-Saharan Africa in East and South Asia.
- 3. Improve cross-sectoral exchange and coordination with humanitarians.** To smoothen or even prevent disaster-related displacement CRI tools could make greater use of forecasts. Dialogue with stakeholders in the humanitarian sector should be intensified to improve the design and delivery mechanisms of CRI tools, such as was successfully done with the African Risk Capacity Replica Coverage that allows UN agencies and other humanitarian actors to match ARC country insurance policies.
- 4. Address knowledge and data gaps on climate-induced mobility.** Although there is comprehensive research on the climate-mobility nexus, hard empirical evidence is scarce.
- 5. Explore in more detail how CRI tools affect mobility.** There is limited evidence on the impact of CRI tools, especially with regards to mobility. As part of impact assessments, knowledge should be advanced on how CRI tools have affected coping and survival strategies.



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The principal goal is to improve applied knowledge relating to the sustainable management of human mobility in the context of climate change in our partner regions the Caribbean and the Pacific and our partner country the Philippines, as well as in German and international cooperation.

The Programme is focusing on:

- Supporting our partners at regional, national and sub-national level in managing HMCCC through participatory approaches
- Developing information and resources on climate-induced human mobility
- Supporting international policy processes

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